



# OLR RESEARCH REPORT

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## **PURA DECISION ON UTILITY COMPANY OUTAGE PERFORMANCE STANDARDS**

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You asked for a summary of the Public Utilities Regulatory Authority (PURA) decision in docket 12-06-09, establishing performance standards for electric and gas companies after a major outage. The decision is available on PURA's website <http://www.ct.gov/pura/site/default.asp>.

### **SUMMARY**

PA 12-148 required PURA preparation and service restoration standards for electric and gas companies after major outages during an emergency in which more than 10% of the company's customers are without service for more than 48 hours. PURA's subsequent decision establishes similar standards for electric and gas companies, but imposes a stricter outage threshold for gas companies, applying the standards to outages involving 1% or more of a company's customers lasting 48 consecutive hours or more. For electric and gas companies, the standards do not relieve the companies from other service restoration requirements for less extensive outages.

The decision requires each company to develop and implement an emergency response plan. Among other things, the plan must include specific steps the company will take when the outages reach specified levels. The plan must also

1. describe the process the company will use to assess damage and, where appropriate, use contingency resources required to expedite a response to the emergency;
2. include guidelines for setting priorities for service restoration; and
3. describe how the company intends to use resources available under mutual assistance agreements.

The decision requires each company to establish written protocols for timely and accurate communications between it and state and local agencies and other utilities. It also requires each company to participate in training exercises.

The decision requires a company to restore service to its customers in a safe and reasonable manner during all service interruptions and outages. During an emergency, this must at least include implementing of all applicable components of a company's plan. Each company must abide by the guidelines and priorities for service restoration contained in its plan. Each company must submit a written report to PURA within 60 days after the end of the outage.

The decision orders each electric and gas company to incorporate the applicable standards into its existing emergency response plans and to implement them in its operations. Non-compliance with the standards can subject the company to civil penalties pursuant to CGS §16-41, which generally permits penalties of up to \$10,000, with each day of a continued violation considered a separate offense. PA 12-148 caps the penalty at 2.5% of the company's annual distribution revenue. In determining the penalty, PURA must consider if it approved the company's efforts and funding allowances to meet infrastructure resiliency standards. The penalties must be paid as a credit to ratepayers and cannot be considered an operating expense that the company may recover in its rates.

The decision orders the electric companies, by November 23, 2012, to report to PURA on their compliance with the standards. In this report, the companies must describe each requirement of the standards that they do not comply with and describe their plans for becoming compliant. The decision requires the gas companies, by the end of each

calendar quarter, to submit a status report on their compliance with the standards, including a clear statement on each requirement it is presently not in compliance with and plans for becoming compliant. This requirement begins with a report due December 31, 2012 and ends after the company reports its compliance with all requirements.

The decision also reviews each company's practices concerning service restoration after an emergency; the adequacy of each company's infrastructure, facilities and equipment; coordination efforts between each electric company and telecommunications and cable TV companies; and each electric company's tree trimming policies.

## **PA 12-148 REQUIREMENTS**

PA 12-148 required PURA, among other things, to establish minimum performance standards for electric and gas company preparation and service restoration during an emergency in which more than 10% of the company's customers are without service for more than 48 hours (as discussed below, the PURA decision establishes a stricter threshold for gas companies). The standards must include requirements for:

1. minimum staffing and equipment levels for each company, based on the size of its customer base and the nature of its infrastructure;
2. recovery and restoration targets based on outages affecting over 10%, 30%, 50%, and 70% of a company's customers;
3. a communication plan between the company and its customers that includes communications during non-business hours;
4. safety standards for company employees, mutual aid crews, and private contractors;
5. the filing of mutual aid agreements and an assessment of each company's ability to rely on assistance from other regional utilities;
6. communication and coordination protocols between companies and state and local emergency operations centers (EOCs) regarding emergency preparation, road clearing, and restoration priorities;
7. electric company tree trimming, cutting, and removal to reduce outages;

8. communication and coordination, in consultation with the Department of Emergency Services and Public Protection (DESPP), between each company and the public, including standards for using the emergency notification system to notify the public of service restorations and possible dangerous conditions;
9. timely communications between companies and relevant state and local officials regarding emergency coordination and communication;
10. communication and coordination between appropriate electric, gas, and telecommunication companies; and
11. operations of electric and gas company call centers.

In future rate cases, the act requires PURA to allow electric or gas companies to recover the reasonable costs they incur by maintaining or improving their infrastructure's resiliency, pursuant to plans that PURA approves, in order to meet the standards that PURA implements.

Jacobs Consultancy Inc. assisted PURA in the proceeding. PURA held technical meetings on October 10, 11, and 12 on the draft standards. A wide range of organizations participated in the proceeding, including the state's electric, gas, telecommunications, and water companies, DESPP, the Department of Energy and Environmental Protection, the Office of Consumer Counsel, and the Connecticut Conference of Municipalities.

## **ELECTRIC COMPANIES' PERFORMANCE STANDARDS**

### ***Emergency Response Plan***

The decision requires each company to develop, implement, maintain, and use an emergency response plan so that it is adequately prepared to restore service in a safe and reasonably prompt manner during an emergency. The plan will help ensure that a company's performance of its responsibilities, in conjunction with the work performed by state agencies, municipalities, other utility companies, and state residents, can collectively help achieve the state's goal to protect life and property during an emergency or major outage. In addition, the plan will help assure that each company effectively communicates the scope and expected duration of an outage with the public, government entities, and other utilities.

**Plan Contents.** Each company's plan should incorporate the structure and process of the National Incident Management System and use the Incident Command System to permit command and control to be centralized or dispersed during an emergency to provide optimum and efficient response and utilization of resources.

Each plan must contain escalation levels that define actions and trigger points consistent with at least four levels of customer outages (10%, 30%, 50%, and 70%). These and other defined trigger points should be designed to ensure that the company's:

1. decision to activate its EOC follows a consistent level of emergency;
2. damage assessment is expanded and enhanced in response to a pre-determined level of customer outages;
3. estimated restoration times are suitably tailored to the level of outage and the accuracy of the data, particularly regarding automated feeds to Interactive Voice Response facilities;
4. staging areas for food, fuel, materials, field work force, and lodging and other decentralization efforts are optimized according to the level of outage; and
5. staffing is adequate to provide communications during the emergency, in particular assigning staff to specific groups such as the media, local officials, and customers.

The plan must describe the process for assessing damage and, where appropriate, using contingency resources to expedite a response. It should also specify how damage assessments will be delivered. For example, mobile data terminals or other electronic methods can be used to update an outage management system to aid in restoration planning and estimating restoration times.

The plan must include guidelines for setting service restoration priorities. In general, the company must first restore service to critical customers and then restore the largest number of customers in the shortest amount of time. This provision does not prohibit a company from simultaneously restoring critical customers, the largest number of blocks of customers, and performing other restoration activities as described in its plan.

The plan must describe how the company will ensure the safety of the public and company employees and its procedures for safety standby. It must also include contingency measures to respond to an increased number of reports concerning unsafe conditions.

***Mutual Assistance and Contractors.*** The plan must describe how the company intends to employ resources available under mutual assistance agreements for emergency response. Mutual assistance must be requested when (1) the company reasonably believes that local resources are inadequate to assure timely restoration of service or public safety or (2) mutual assistance would substantially improve restoration times or mitigate safety hazards. The plan should include a storm matrix for various storm levels that identify the necessary mutual aid or contractor resources needed to restore customers within a prescribed time range. Additionally, the matrix should identify different types of storms and establish resource requirements specific to those types of emergencies.

The plan must recognize the need to communicate mutual assistance activities with state and local agencies. It must also specify mutual assistance protocols and prioritization. These could include using holding company resources, contract crew reservations, local company assistance, and organizations the company belongs to, such as the North East Mutual Assistance Group or the Edison Electric Institute Restore Power. The plan must specify at what outage level or anticipated outage level the company will request mutual assistance, taking into account travel times, to ensure sufficient resources to rapidly and efficiently provide restoration.

Each company must annually notify PURA by July 1<sup>st</sup> of the mutual aid groups to which it belongs and whether there have been changes in the membership of those groups or material changes in their rules in the previous 12 months.

The company must determine the best time, after the emergency starts, to begin evaluating and documenting the need for mutual assistance. The company is not required to seek assistance if it would not substantially expedite restoration of electric service or substantially promote public safety. The company should periodically reevaluate the need for assistance during the outage.

Each company must review safety expectations with incoming contractors and mutual aid support crews before allowing them to begin restoration work. This includes U.S. Occupational Safety and Health Agency requirements and the company's own safety standards.

Companies continue to be responsible for reporting safety incidents to the PURA in compliance with the applicable accident reporting requirements of Conn. Agencies Regs. §16-16-3 and applicable provisions in federal regulations specific to electric power transmission and distribution.

### ***Communications***

***With State Agencies.*** Each company must establish written protocols for timely and accurate information exchange between it and a pre-determined list of state agencies during statewide or other large-scale emergencies. At a minimum this should include:

1. a database of relevant agencies such as PURA, the U.S. Department of Homeland Security, and DESPP, including contact information that is updated at least twice per year;
2. clearly defined communication channels to exchange information during an emergency, such as WebEOC, email, website, and social media;
3. defined baselines for the frequency of regular updates between the company and pre-determined state agencies; and
4. protocols establishing meetings twice per year with PURA and the U.S. Department of Homeland Security and DESPP officials to (a) review and confirm coordination protocols for communication during an emergency, (b) update and verify contact information among agencies, (c) exchange other relevant information; and (d) create a record of discussions to be shared among all defined agencies.

Each company must establish protocols for participating in emergency support function-12 (ESF-12) for emergencies affecting larger areas. At a minimum this should include:

1. the staff assigned to serve as liaisons with ESF-12 team members; and
2. participation in ESF-12 emergency exercise training as conducted by state agencies.

**With Local Agencies.** Each company must establish written communication protocols for timely and accurate information exchange between it and any pre-determined local agency such as public safety officials and agencies, local elected officials, and others the company deems appropriate during emergencies affecting multiple jurisdictions. At a minimum this should include:

1. a written description of town liaison or similar programs with clearly defined roles and responsibilities, staff identified to serve in these roles, and training schedules;
2. a database of relevant local agencies, including current contact information for individuals and departments that is updated at least once per year;
3. clearly defined communication channels for exchanging information during an emergency, such as WebEOC, possibly supplemented with other channels such as a company website, email and social media;
4. defined baselines for the frequency of regular updates between the company and pre-determined local agencies; and
5. protocols establishing pre-event meetings at least once per year with local agencies to (a) review and confirm coordination protocols for communication during an emergency, (b) update and verify contact information, (c) exchange other relevant information, and (d) create a record of discussions to be shared among all defined agencies.

Each company must establish written protocols for initiating contact with defined staff from each municipality served no later than two days before an expected event, or as soon as reasonably practicable based on availability of adequate information.

To ensure consistency of information across jurisdictions and to meet their needs for relevant information, each company must coordinate with the local agencies within its service territory to develop a standard template listing the type of information that must be relayed before an emergency. At a minimum, the template should include:

1. local agency recipients including contact information;
2. how often updates will be provided throughout the emergency; and



3. how to disseminate information to local agency designees.

In addition, each company must develop a second template listing the type of information that must be relayed to the local agencies during an emergency. At a minimum the template should include the same information as described above, plus:

1. restoration information, as available;
2. the extent of impact; and
3. emergency contacts for local agencies.

***With Other Utilities.*** Each company must establish protocols for adequate and timely communication and coordination between itself and appropriate electric, gas, and telecommunications companies. These protocols must permit communication and coordination for emergencies with and without activation of the state EOC. During emergencies when the state EOC is opened, the companies are expected to provide liaison and expert staffing in the state EOC to fulfill the requirements of ESF-12.

### ***Exercises***

***Annual.*** Each company must conduct and participate in training and drills or exercises to ensure effective and efficient performance of personnel during emergencies, and to ensure that it can restore service to its customers in a safe and reasonably prompt manner. Each company must conduct an annual exercise using the procedures set forth in its plan. Responding to an emergency under the plan counts as an annual exercise, but the company must then complete another exercise within 18 months. Each company must annually evaluate its response to an exercise or major outage. The evaluation must be provided to the PURA within 60 days after the exercise or event.

Each company must annually train designated personnel in preparation for emergencies. The training must be designed to overcome problems identified in the evaluations of responses to an event or exercise and reflect any relevant changes to the company's plan.

Each company must provide at least ten days' notice of its annual exercise to PURA, DESPP, the chief elected official of each municipality in its service territory, any state-established emergency offices for the region in which the exercise is to be performed, and appropriate local authorities. When invited, the company must participate in other emergency exercises designed to address problems on electric facilities or services conducted by the state or any state-established emergency office for one or more regions in its service territory.

**Triennial.** Every three years, each company must conduct or participate in a comprehensive emergency exercise to test and evaluate its plan's major components. It also must invite a cross-section of the following, or their representatives, located within the service territory, to the exercise:

1. chief elected official and other elected officials;
2. county or regional emergency management directors (since Connecticut does not have county governments, this provision may refer to agencies in neighboring states that are also affected by outages);
3. fire and police departments;
4. community organizations, such as the Red Cross, that have previously participated in such exercises or that the company concludes should participate in them; and
5. PURA.

The large-scale triennial exercises should consider the highest level event covered in the plan, for example when 70% of its customers suffer an extended outage. The exercise should include after-action and lessons-learned reports to the company's participants and any other participants whom the company recommends should modify or improve their performance. The company should file these reports with PURA within 60 days following each exercise.

### ***Restoration and Recovery.***

Each company must restore service to its customers in a safe and reasonable manner during all service interruptions and outages. During an emergency, this must at least include minimum of implementing all applicable components of a company's plan related to restoration of service. Each company must make all reasonable efforts to restore service within the shortest time practicable consistent with its plan targets and safety.

Each company must abide by the guidelines and priorities for service restoration contained in its plan.

Each company must establish metrics to evaluate communication before and during events with a pre-determined list of state agencies and identify opportunities for improvement. The companies must establish similar metrics to evaluate communication before and during emergencies with local agencies substantially impacted by the emergency in its service territory.

### ***Report to PURA***

Each company must submit a written report to PURA within 60 days after the end of an event. In preparing for these reports, the company should establish a standard template for collecting desired information following an event from staff at all levels of the company, each municipality, local agencies within its service territory affected by the emergency, and DESPP to assist in lessons learned and continual improvement. These may include:

1. information needed to evaluate pre-established measures defined under Restoration/Recovery;
2. facilitated forums to gather information and exchange ideas for improvement (a) between company staff at all levels of the organization and (b) with agency representatives; and
3. identification of gaps and develop action steps for addressing areas for improvement.

### **GAS COMPANY PERFORMANCE STANDARDS**

The decision establishes similar standards for gas companies to ensure that they are prepared for emergencies and disasters in order to minimize damage and inconvenience to the public that may occur as a

result of gas system failures, major outages, or hazards posed by damage to natural gas distribution facilities. However, the outage standard is lower, applying to involving 1% or more of a company's total number of customers who are out for 48 consecutive hours or more. In developing these gas standards, PURA sought to identify a realistic level of potential gas service interruptions as compared to electric service interruptions. Based on gas industry experience, PURA decided on outage affecting 1% or more of the company's customers for of 48 consecutive hours is a more appropriate initial trigger point than the 10% used for electric company. Similarly, the decision requires the gas company plans to contain escalation levels that define actions and trigger points when 1%, 3%, 5%, and 7% of their customers have lost service.

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